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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,607	07/24/2002	Susan Joy Cooper	JMYT-252US	5114

7590

10/19/2005

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EXAMINER
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MERCADO, JULIAN A

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/018,607	<b>Applicant(s)</b> COOPER ET AL.	
	<b>Examiner</b> Julian Mercado	<b>Art Unit</b> 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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## DETAILED ACTION

### *Remarks*

This Office action is responsive to applicant's remarks and arguments filed August 1, 2005.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Hausler (U.S. Pat. 3,881,957).

The rejection is maintained for the reasons of record. The examiner notes that the scope of the present claims is as originally or previously presented in the prior Office action.

Applicant's arguments have been fully considered, however they are not found persuasive.

The examiner maintains that the support in Hausler is non-conducting to the extent that it is the same material, e.g. alumina, used and described by applicant. Applicant agrees with alumina being non-conducting, but submits that the patentees do not employ alumina alone, and instead employ alumina along with pyropolymers to form a semi-conducting support. (emphasis in original) In reply, the examiner asserts that Hausler does not form a semi-conducting *support* – it is the *electrode material* that is disclosed as being semi-conducting. (emphasis added) See

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col. 5 line 62 et seq. which states that the "porous refractory oxide is suitable as a basic component of the semi-conducting material for use as an electrode material for an electrochemical cell." Thus, alumina in and of itself is maintained as non-conducting. It appears to the examiner that applicant's arguments are premised on an electrically non-conducting first catalytic component comprised of a catalyst supported on an (electrically non-conducting) support. However, the examiner notes that the claims require the support as the non-conducting component. Indeed, in Hausler the "refractory oxide spheres... [are] used as a basic component" of the arguably semi-conducting electrode material. See col. 6 line 1 et seq.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 and 15-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilkinson et al. (EP 0 736 921 A1) in view of Hausler (U.S. Pat. 3,881,957).

The rejection is maintained for the reasons of record. Applicant's arguments have been fully considered, however they are not found persuasive.

Applicant submits that the technical considerations in combining a high temperature fuel cell with a low temperature fuel cell are completely different. In reply, applicant is reminded that attorney arguments are not evidence and cannot take place of evidence in the record; factual evidence is required to rebut a prima facie case of obviousness. MPEP 2145. As to an alleged

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technical consideration in temperature, the examiner is of the position that the skilled artisan would not be dissuaded in looking into the teachings of Hausler to incorporate into the teachings of Wilkinson et al. if solely based on temperature alone (as applicant appears to suggest). For example, temperature considerations, if present, can be circumvented with heat exchangers, coolant configurations and heat sinks, as notoriously known to the skilled artisan. Secondly, applicant's observation of a high temperature cell (such as by Hausler, patented in 1975) as compared to a low temperature fuel cell (such as by Wilkinson et al., patented in 1996) appears to the examiner as merely indicative of the technological progression in the art towards lower-temperature (and hence more thermally efficient) fuel cells. The mere age of the references is not persuasive of the unobviousness of the combination of the teachings absent a showing that the art tried and failed to solve the same problem notwithstanding its presumed knowledge of the references. See *In re Wright*, 569 F.2d 1124, 193 USPQ 332 (CCPA 1977) and *Ex parte Meyer*, 6 USPQ2d 1996 (Bd. Pat. App. & Inter. 1988).

In reply to the Office action's reason for combining Wilkinson et al. and Hausler, Applicant submits that "[o]ne of ordinary skill in the art would not expect the inclusion of a non-conductive support to increase conductivity." However, this line of argument appears inconsistent with applicant's earlier assertions that Hausler forms a semi-conducting support. (as discussed above, emphasis in original) Notwithstanding, the examiner maintains the motivation for such a modification such as in enhancing the electrical conductivity of the electrode based on a *non-conductive* alumina support, as taught by Hausler. (see col. 7 line 1 et seq. and col. 8 line 23 et seq., emphasis added).

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

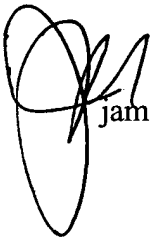
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR


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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



jam



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